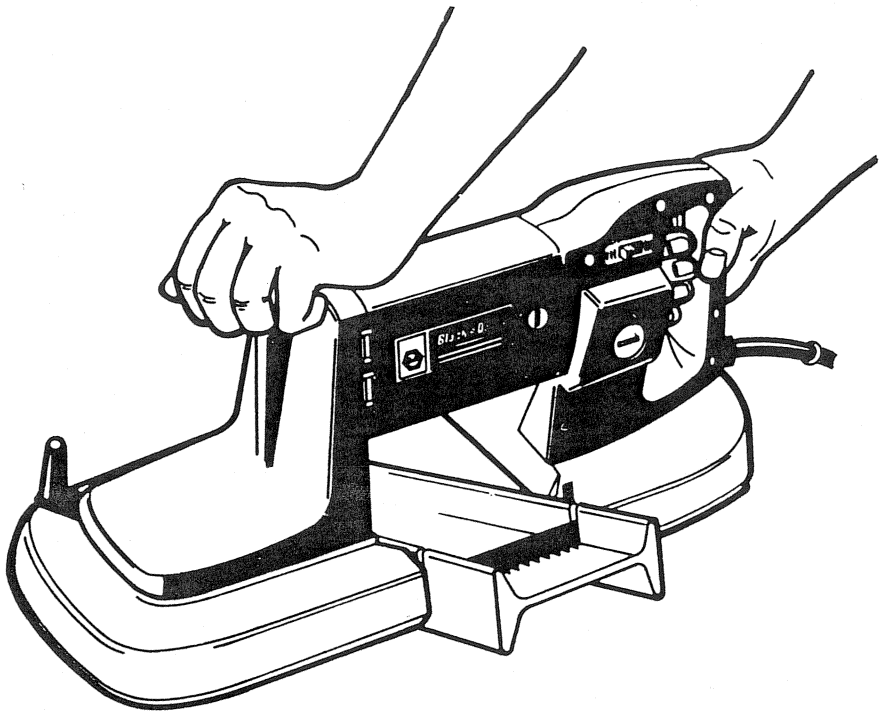
Black & Decker®

OWNER'S MANUAL



This is a high-powered, professional tool, designed primarily for fast metal cutting. The housing and gripping areas are made from non-conductive, insulating material. Changing blades is fast and easy, and a wide selection of blades is available for efficient cutting of many different kinds of materials.

Safety and proper usage are of utmost importance with power saws! Before trying out your new Saw, please read all safety rules and instructions carefully!

Don't forget to send in the owner registration card.

THANK YOU for buying BLACK & DECKER!

IMPORTANT!
To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always using BLACK & DECKER replacement parts.

PORTABLE BAND SAWS

SAFETY RULES FOR POWER TOOLS

1. **KNOW YOUR POWER TOOL**—Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **GROUND ALL TOOLS — UNLESS DOUBLE-INSULATED.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a **known ground. Never** remove third prong.
3. **KEEP GUARDS IN PLACE** and in working order.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tool in damp or wet locations. And keep work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
7. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place — out of reach of children.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
10. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
11. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
12. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
13. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **DISCONNECT TOOLS.** When not in use, before servicing; when changing accessories such as blades, bits, cutters, etc.
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
18. **AVOID ACCIDENTAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
19. **OUTDOOR USE EXTENSION CORDS**—When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.
20. **DO NOT OPERATE** portable electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

ADDITIONAL SAFETY RULES—SAWS

1. **DISCONNECT PLUG** from power supply before changing blades, inspecting, cleaning or when saw is not being used.
2. **KEEP HANDS AWAY** from cutting area.
3. **WHEN SAWING** never reach underneath the material for any reason.
4. **KEEP BLADE SHARP.** Dull blades may cause the saw to swerve or stall under pressure.
5. **IF YOU DROP THE SAW,** unplug it first; then check all external parts including blade and blade guard. Repair or replace damaged parts before using saw.
6. **KEEP REAR BLADE GUARD** in place and in working order.

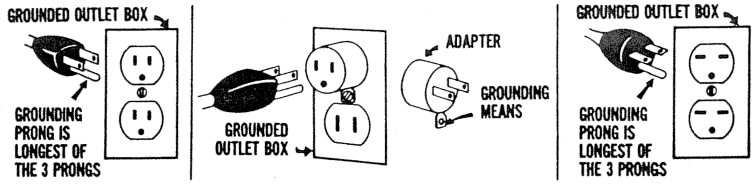
GROUNDING INSTRUCTIONS

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved three-conductor cord and three-prong grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

If your unit is for use on less than 150 volts, it has a plug like that shown in Figure A.

If it is for use on 150 to 250 volts, it has a plug like that shown in Figure D.

An adapter, Figures B and C, is available for connecting Figure A plugs to two-prong receptacles. The green-colored rigid ear, lug, etc., must be connected to a permanent ground such as a properly grounded outlet box. No adapter is available for a plug as shown in Figure D. Adapter shown in Figure B & C is Not for Use in Canada.



We recommend that you **NEVER** disassemble the tool or try to do any rewiring in the electrical system. Any repairs should be performed only by B & D Service Centers or other qualified service organizations. Should you be determined to make a repair yourself, remember that the green colored wire is the "grounding" wire. Never connect this green wire to a "live" terminal. If you replace the plug on the power cord, be sure to connect the green wire only to the grounding (longest) prong on a 3-prong plug.

MOTOR

Your Black & Decker tool is powered by a B & D-built motor. Be sure your power supply agrees with voltage marked on nameplate. **Volts 50/60 Hz** means **Alternating Current only. Volts DC-60 Hz** means it will also operate on **Direct Current.** Voltage variation of more than 10% will cause loss of power and over-heating.

MOTOR BRUSHES

Inspect carbon brushes frequently (first unplug tool) by removing the brush inspection caps (Figure 1, next page) and withdrawing the brush and spring assembly. Replace when brushes are worn down to the identifying letter or groove or when spring exerts insufficient pressure to hold brush against commutator. Keep brushes clean and sliding freely in guides.

EXTENSION CORD

When using the tool at a distance from power source, a 3-wire, grounding-type extension cord of adequate size must be used for safety and to prevent loss of power and over-heating Use the table below to determine the minimum wire size required in an extension cord.

Use only three-wire extension cords which have three-prong grounding-type plugs and three-pole receptacles which accept the tool's plug. Replace or repair damaged cords.

Ampere rating (on nameplate)	0 to 2.0	2.10 to 3.4	3.5 to 5.0	5.10 to 7.0	7.10 to 12.0	12.1 to 16.0
Ext. Cable length	Wire Size (A.W.G.)					
50 ft.	18	18	18	18	16	14
75 ft.	18	18	18	16	14	12
75 ft.	18	18	16	14	12	10
100 ft.	18	16	14	12	10	—
150 ft.	16	14	12	12	—	—
200 ft.	16	14	12	10	—	—

The accessories listed in this manual are available at extra cost from your local dealer, Black & Decker Service Center, or by writing to: Customer Services, Black & Decker (U.S.) Inc., Towson, Maryland 21204

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BLADES

The Portable Band Saw uses only blades that are .020" thick, ½" wide and 44⅞" long. **CAUTION:** The use of any other blade or accessory might be hazardous. DO NOT use any other type of accessory (other than the correct size blade) with your Band Saw. Blades used on stationary band saws are of different thickness. Do not attempt to use them on your portable unit.

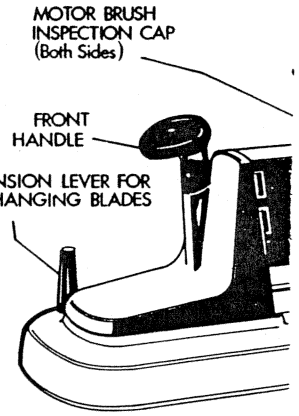
Blades recommended for cutting different materials with your saw are listed below.

High-Speed Steel & Alloy Steel Blades

These blades are used for cutting harder metals (use 2-Speed Saw at low speed), and will outlast carbon steel blades when cutting softer metals. Both types will cut tool steel, high-speed steel, drill rod and similar materials (see table above).

Some experimentation will determine which type of blade has the longest life on your cutting applications. Factors that may favor one type of blade over the other are operator technique, twisting, binding and the material being cut.

MATERIAL THICKNESS OR WALL THICKNESS	USE HIGH SPEED TO CUT COPPER, B ALUMINUM
3/16" to 7/8" AND LARGER	10 TOOTH CAR
5/32" to 3/4"	14 TOOTH CAR
1/8" to 1/2"	18 TOOTH CAR
3/32" to 1/8"	



CHANGING BLADES

1. FIRST, UNPLUG THE BAND SAW.
2. Turn the Saw upside down with power cord to left (Figure 2).
3. Pull the Tension Lever toward the center of the tool into position "A" (Figure 2). Remove the blade from the pulleys first, and from the blade guides last.
4. Inspect the blade guides and remove any large chips which may have lodged in them. These chips can prevent the guide from turning, and extended use with a lodged blade guide can wear a flat on the roller.
5. Wipe any metal particles off of the rubber pulley tires. This will prevent the blade from slipping and will extend the life of the tires.
6. Install the new blade with the teeth facing toward the power cord (Figure 1). Put the blade under the work stop first, then onto pulleys and finally, twist the blade slightly to fit it into the two blade guides.
7. Push tension lever into locked position, "B" (Figure 2), making sure that it is completely forward.
8. Start and stop the saw to be sure that blade is seated properly and is riding on top of wear pad as shown in Figure 2.

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blades are available from your dealer at extra cost.)

) ON 2 SPEED SAW OR USE SINGLE SPEED SAW		USE LOW SPEED ON 2 SPEED SAW ONLY		
RASS, & PLASTIC	OR ANGLE IRON, PIPE, MILD STEEL, CAST IRON	TO CUT	TOUGHER STEELS, CABLE	OR STAINLESS STEEL CHROME & TUNGSTEN STEEL OTHER PROBLEM MATERIALS
10 TOOTH HIGH		SPEED STEEL — Cat. No. 31212		
10 TOOTH ALLOY		STEEL — Cat. No. 31206		
BON STEEL — Cat. No. 31200				
14 TOOTH HIGH		SPEED STEEL — Cat. No. 31213		
14 TOOTH ALLOY		STEEL — Cat. No. 31207		
BON STEEL — Cat. No. 31201				
18 TOOTH HIGH		SPEED STEEL — Cat. No. 31214		
18 TOOTH ALLOY		STEEL — Cat. No. 31208		
BON STEEL — Cat. No. 31202				
24 TOOTH HIGH		SPEED STEEL — Cat. No. 31215		
24 TOOTH ALLOY		STEEL — Cat. No. 31209		
BON STEEL — Cat. No. 31203				

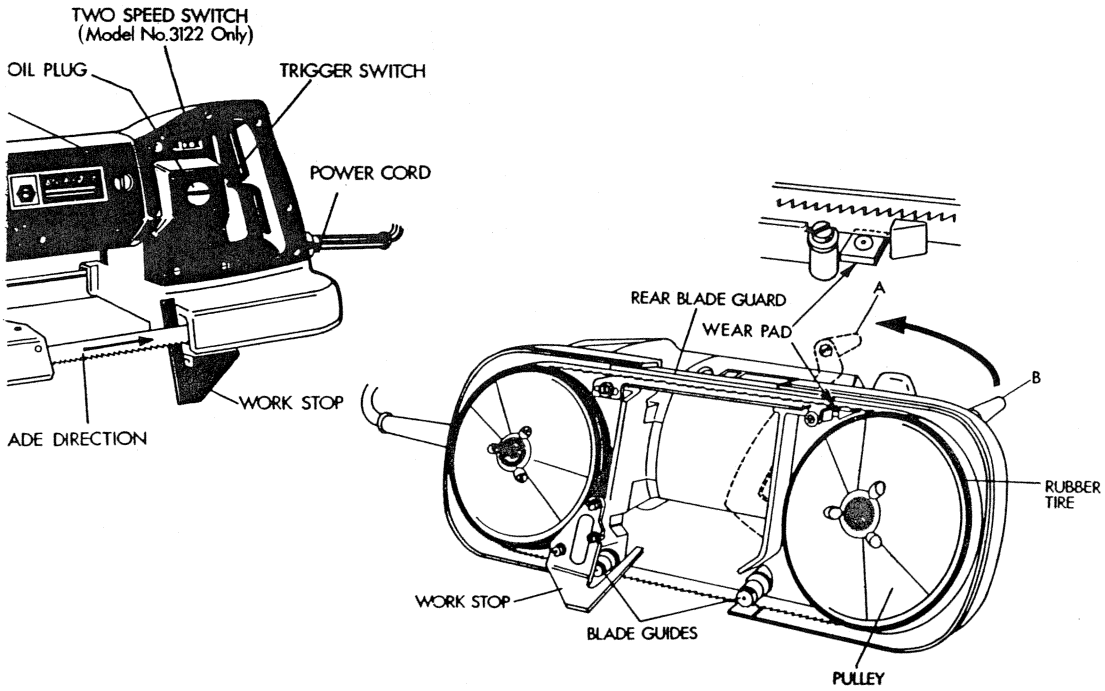

FIGURE 2

OPERATION

1. Mount the material to be cut solidly in a vise or other clamping device.
2. For No. 3122 2-Speed Band Saw only: Select speed. See top of Blade Selection Chart for recommendations. Speed can also be changed when tool is running.

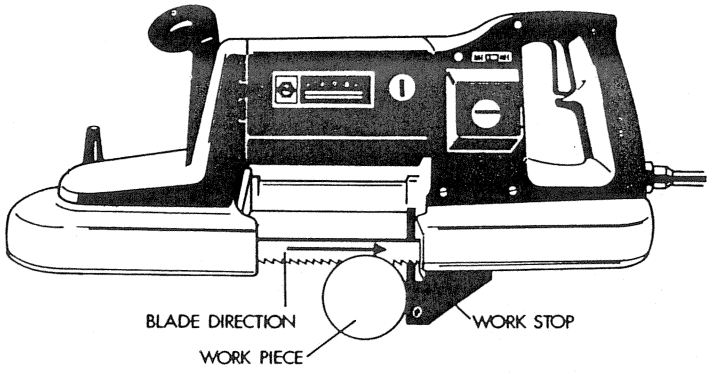

FIGURE 3

3. Turn the Saw "ON" before lowering blade onto work. This will help prevent tooth breakage. Always start cutting with the work piece back against the work stop (Figure 3). Normally, blade direction and cutting force will keep the work against the work stop where it belongs.
4. Watch the blade while cutting so that you can guide the Saw to cut straight. Any twisting or cocking of the blade in the cut, increases the risk of blade breakage.
5. The tool's own weight provides the most efficient downward cutting pressure. Added operator pressure slows the blade and reduces blade life.
6. End pieces, which would be heavy enough to cause injury when they drop, after cut-off, should be supported. Safety shoes are strongly recommended for cut-off work.
7. Hold the Saw firmly so that is does not fall against clamped or supported material when the cut is completed.
8. Recommended positions for cutting various material shapes are shown below.

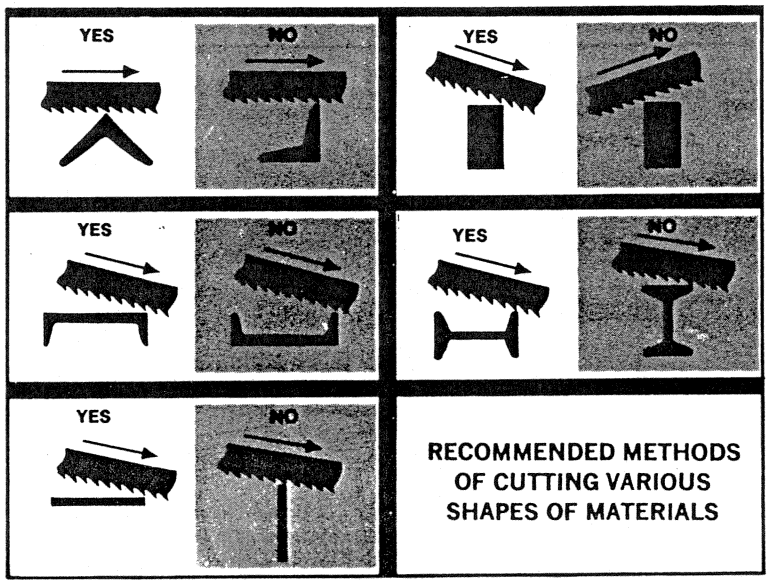

FIGURE 4

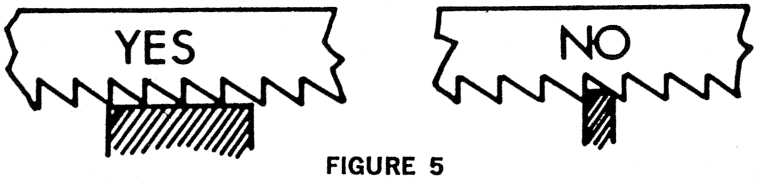

FIGURE 5

TIPS FOR BETTER CUTTING

The following recommendations should be used as a guide. Results may vary with the operator and the particular material being cut.

1. At least two teeth of the selected blade should always be engaged in the material (Figure 5). Otherwise, the moving teeth will tend to grab the material causing tooth breakage and possible blade failure. Thin materials will require fine pitch blades (more teeth per inch).
2. Softer materials require coarser pitch blades (fewer teeth per inch) because the softer materials tend to fill the smaller gullets (Fig. 6) of fine pitch blades causing blade overheating and possible failure.
3. Harder materials require finer pitch blades (more teeth per inch) because there are more teeth in the blade; each tooth does less work and will stay sharp longer.
4. The finish of the cut on any material will improve by using finer pitch blades (more teeth per inch).
5. The saw will cut faster if a coarser pitch blade (less teeth per inch) is used. However, at least two teeth should be engaged or tooth breakage and blade failure may result.
6. When cutting Brass or Aluminum, particularly thick sections or solid bars, stick wax such as #140 Johnsons Stick Wax is recommended. The stick wax should be applied by light pressure of the wax against the moving blade teeth. The wax should be reapplied intermittently for most efficient cutting. NOTE: Do not use wax excessively as it may adhere to pulley tires and cause blade slippage. Make sure pulley tires and blade are wiped clean of wax after aluminum cutting is complete or between cuts if problems occur.

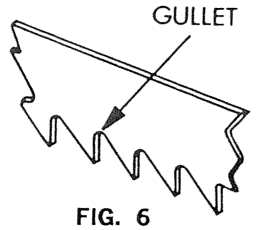

FIG. 6

LUBRICATION

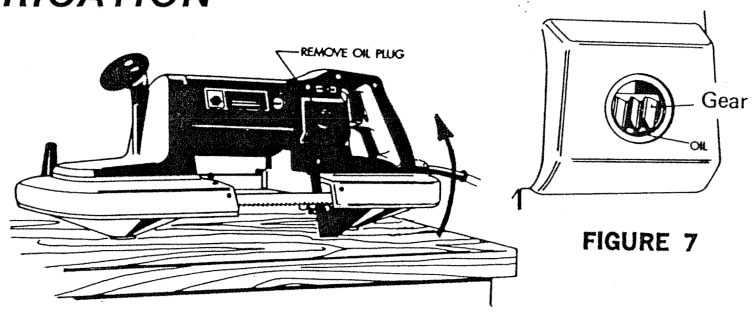

FIGURE 7

Your Band Saw was filled with oil to the proper level at the factory and should not "use" oil under normal circumstances. Check the oil level every 8 operating hours, more often if leakage occurs. Excessive leakage indicates tool needs servicing.

To check the oil level

1. Rest the saw on a flat surface, tilting it back until the blade guard touches the surface. Prop the saw in this position (Figure 7).
2. Remove the oil plug and observe the oil. It should reach the bottom of the filler plug hole.
3. If it is not visible at the bottom of the hole as shown in Figure 7, then oil should be added. Add oil little by little allowing it to settle. Fill to level shown without allowing oil to run out.

It is very important that the proper oil level be maintained in your saw as insufficient oil will cause excessive gear wear. Never fill the gear chamber completely. Overfilling will cause the pumping action of the gears to build up pressure and force oil through the seals and into the motor chamber. This could cause motor failure.

Always use Black and Decker Band Saw Gear Lube Catalog No. 60087, 6oz. tube. Use of any other oil will cause excessive gear wear.

CLEANING

Clean the outside of the Band Saw only with a rag. Do not use any solvents or abrasive cleaners.

COMMERCIAL/INDUSTRIAL USE WARRANTY

Black & Decker warrants this product for one year from date of purchase. We will repair without charge, any defects due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station listed under "Tools Electric" in the yellow pages. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others.

BLACK & DECKER (U.S.) INC., TOWSON, MARYLAND 21204, U.S.A.

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